

Application Serial No: 10/572,861
Responsive to the Office Action mailed on: April 5, 2007

REMARKS

This Amendment is in response to the Office Action mailed on April 5, 2007. Claims 1-3 are amended. Claim 1 is amended editorially and is supported, for example, in the specification on page 7, line 27-page 8, line 2 and in Figure 2. Claim 2 is amended editorially to track the amended claim 1. Claim 3 is amended editorially. Claim 4 is new and is supported, for example, in the specification in Figure 2. No new matter is added. Claims 1-4 are pending.

Specification Objections:

The specification on pages 3-5 is objected to for informalities. The specification is amended to remove any reference to a claim number as suggested by the Examiner. Withdrawal of this objection is requested.

§112, Second Paragraph:

Claims 1-3 are rejected as being indefinite. Claim 1 is amended editorially as suggested by the Examiner and no longer contains the language that the present Office Action found indefinite. Claim 2 is amended editorially and no longer contains the language that the present Office Action found indefinite. Claim 3 is amended editorially to include the phrase "white color film" as suggested by the Examiner. Withdrawal of this rejection is requested.

§103 Rejections:

Claims 1-3 are rejected as being unpatentable over Kiyoshi (JP Publication No. 05-327012). Claims 1-3 are currently amended. Applicant does not concede the correctness of the rejection as it relates to the previously presented claims 1-3.

Amended claim 1 is directed to a chip LED comprising an insulating substrate, a light emitting diode chip mounted on an upper surface of the insulating substrate, and a transparent package provided on the upper surface of the insulating substrate to seal the light emitting diode chip. The light emitting diode chip is mounted on the upper surface of the insulating substrate with an anode electrode of the chip located closer to the insulating substrate than a cathode electrode of the chip so that the anode is located

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between the cathode and the insulating substrate. Also, the light emitting diode chip includes a diode substrate and a light emitting layer between the anode and the cathode, the light emitting layer being located closer to the cathode than it is to the anode, the diode substrate being located between the cathode and the light emitting layer for preventing light generated at the light emitting layer from being emitted through the cathode. An advantage of these features is that they ensure light emission in the horizontal directions while limiting light emissions in the vertical directions.

Kiyoshi does not teach or suggest these features. In particular, nowhere does Kiyoshi teach or suggest a light emitting layer being located closer to a cathode than to the anode. Kiyoshi is directed to a silicon carbide light emitting diode that includes a diode chip (t) mounted on an insulating substrate (2c), an n-type SiC substrate (1), a light emitting layer (2), a cathode electrode (4) and an anode electrode (5). The light emitting layer (2) is located closer to the anode (5) than the cathode (4) (see Figure 1). Thus, Kiyoshi teaches away from the light emitting layer (2) being located closer to the cathode (4) than to the anode (5), as required by the light emitting layer, cathode and anode of claim 1.

Moreover, there is no motivation to modify Kiyoshi to meet the features of claim 1. As shown in Figure of Kiyoshi, the n-type SiC substrate (1) is formed to allow light emissions in the vertical direction. Nowhere does Kiyoshi contemplate the formation of a chip LED that ensures light emissions in the horizontal directions while limiting light emissions in the vertical directions. For at least these reasons claim 1 is not unpatentable over Kiyoshi. Claims 2 and 3 depend from claim 1 and should be allowed for at least the same reasons.

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Conclusion:

Applicant respectfully asserts that claims 1-4 are now in condition for allowance. In view of the above, early issuance of a notice of allowance is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.



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Respectfully submitted,

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